DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-025276

Address: 333 Burma Road Date Inspected: 20-Jul-2011

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1530 Prime Contractor: American Bridge/Fluor Enterprises, a JV Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Jobsite

CWI Name: William Sherwood **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

Bridge No: 34-0006 **Component: SAS OBG**

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

- 1. 11E 12E Side Plate C (Interior)
- 2. 11W 12W Deck Plate A (Exterior)
- 3. 11W 12W Edge Plate F (Interior)
- 4. 10E 11E PP88 Drip Rails
- 5. 11E 12E Edge Plate F (Interior)
- 6. 7W PP55 W4/7W PP53 W4/8W PP64 W3 Lifting Lug Holes
- 1. 11E 12E Side Plate C (Interior)

The QA Inspector randomly observed ABF welding operators Wai Kitlai ID#2953 performing Flux Core Arc Welding w/gas (FCAW-G) operations in the 3G vertical position on side plate C at 11E 12E on the inside of the OBG. The QA Inspector observed the QC Inspector Steve Jensen as being present in order to monitor the progress and ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3042B-1. The QA Inspector noted that the work appears to be in general conformance with the contract documents.

2. 11W 12W Deck Plate A (Exterior)

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The QA Inspector noted the dimensions of the excavations at A1 to be Y=3420mm's with a length of 150mm's, width 15mm's and a depth of 14mm's. A2 Y=1460mm's with a length of 170mm's, width 18mm's and a depth of 14mm's. A2 Y=1750mm's with a length of 150mm's, width 20mm's and a depth of 14mm's. Upon completion of the excavations, the QC Inspector performed a Magnetic Particle Test and found the areas to be free of indications. ABF welder Wai Kit Lai ID# 2953 commenced welding the R1 areas in the 1G flat position using SMAW with the QC Inspector being present in order to monitor the progress and ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1001R. The QA Inspector noted that the work is in progress and appeared to be in general conformance with the contract documents.

3. 11W 12W Edge Plate F (Interior)

The QA Inspector observed the QC Inspector identified as John Pagliero perform Ultrasonic testing on edge plate F at 11E 12E inside of the OBG. The QA Inspector noted an indication at Y=660mm which ABF welder Fred Kaddu ID# 2188 began excavation. The QA Inspector noted the dimensions of the site at 90mm's in length, 20mm's wide and 8mm's deep. Upon completion of the excavation, the QC Inspector performed a Magnetic Particle Test and found the area to be free of indications. The ABF welder commenced welding the R1area in the 3G vertical position with the QC Inspector being present in order to monitor the progress and ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1001R. The QA Inspector noted that the work is in progress and appeared to be in general conformance with the contract documents.

4. 10E 11E PP85 Drip Rails

The QA Inspector observed ABF welder Eric Sparks ID# 3040 perform SMAW in the 4G overhead position on drip rails located at 10E 11E PP85.9, PP86.1, PP86.9 and PP88. The QA Inspector observed the QC Inspector Steve Jensen as being present in order to monitor the progress and ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-F1200A. The work was completed on this date and the QA Inspector noted that the work appeared to be in general conformance with the contract documents.

5. 11E 12E Edge Plate F (Interior)

The QA Inspector observed ABF welder Wen Han Yu ID#6317 perform SMAW in the 3G vertical position on edge plate F at 11E 12E inside of the OBG. The QA Inspector observed the QC Inspector identified as Steve Jensen as being present in order to monitor the progress and ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1040A Rev. 1.The QA Inspector noted that the work is in progress and appeared to be in general conformance with the contract documents.

7W PP55 W4/7W PP53 W4/8W PP64 W3 Lifting Lug Holes

The QA Inspector performed a Magnetic Particle Test (MT) on Lifting Lug Holes #1 – 4 at 7W PP55 W4, #1 and 4 at 7W PP53 W4 and #1 – 4 at 8W PP 64 W3. The QA Inspector tested 10% of the weld to verify the weld and testing by QC meet the requirements of the contract documents. The QA Inspector noted that the work appeared to be free of defects and was found to be acceptable and in general conformance with the contract documents. Upon completion of the MT, the QA Inspector performed Ultrasonic Testing utilizing a G.E./Krautkramer USN 60. The QA Inspector also utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination.

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Upon completion of the testing, it was noted by the QA Inspector that no indications were present and the work was found to be acceptable.

Summary of Conversations:

At the beginning the shift the QA Inspector met with QC Inspector William Sherwood and discussed the welders assignments and locations for the shift to include pending issues, ongoing work and required testing.





Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

| Inspected By: | Frey,Doug | Quality Assurance Inspector |
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| Reviewed By: | Levell,Bill | QA Reviewer |